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LETTER FROM THE EDITOR

At International SOS we strive to provide excellence in healthcare and related services that go beyond your expectations. **YOUR HEALTH IS OUR PRIORITY.**

“Your happiness is a reflection of your health.”

This edition of Clinic Care is based on your happiness and quality of life, making positive choices that contribute to a healthy future.

With advice and knowledge shared by our team of doctors and medical services staff, this issue is filled with relevant information relating to common health issues, with the aim to help everyone take a step towards a healthier life.

Aches and pains can severely limit your happiness. We provide comprehensive information about common aches and pains.

Additionally, we explore the potential health threats of too little sleep on the body and how this affects your everyday quality of life.

This edition also investigates the mental and physical effects of stress, and suggests simple remedies.

We provide information about first aid for burns and include tips on what to do and what to avoid.

Know your numbers — it’s as easy as one, two, three. We provide the numbers to a healthy lifestyle with advice, recommendations and knowledge that can improve your health.

Arthritis can be debilitating. Read more about the causes, symptoms, diagnoses and treatments that can help set the chains of this disease free and help you live a happy life.

I hope you enjoy this edition and that it inspires you to follow new health directions. By changing your ways, you can influence others to change too. May it therefore also serve to motivate others to choose a better, happier lifestyle.

**YOUR HEALTH IS OUR PRIORITY, NOW MAKE IT YOURS.**

Warm regards,
Lizette Klingenberg

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**OVERCOMING BACK PAIN**

Written by: Dr Andrew Ebringer, Regional Medical Director, Medical Services, Australasia

Back pain is very common; affecting about 80% of people at some point in life. It can be a major cause of absence from work and can interfere with the activities of daily living.

The type of pain can range from an ache to shooting pains or spasms in the lower back or along the spine, from the neck to the hips. Sometimes the pain can travel down the back of one or both legs – this symptom is called sciatica. Most people generally feel better in a few days or weeks, but occasionally the pain can last for months or longer, depending on the cause.

If you have suffered from back pain before, you know that it can affect your ability to do daily tasks at home or at work. Lower back pain can be severe from the outset, so it is natural to be concerned and it is important to seek medical help early if indicated. If you have experienced it before, it is more likely that you will experience back pain again. The key to managing back pain is to stay active and control the pain.

What causes back pain?

In most cases back pain is not caused by a serious problem and it is often preventable. It is most commonly of “mechanical” origin – due to an injury to, or degeneration of, the structures in the back. Those structures are the bones, muscles, cartilage (“discs”) and nerves. Degenerative causes are very common as you get older and these include arthritis and disc disease. Accidents, such as falling over, or car accidents, may also result in back pain due to traumatic structural damage.

Women, men, adults and children can all be affected, although it most commonly occurs in those between the ages of 30 and 50. Smoking, obesity, anxiety, depression, extremely physical or sedentary work all increase the risk of developing lower back pain.

**Activities that can commonly result in injury to the lower back include:**

- lifting heavy objects;
- repetitive bending over;
- jarring movements; and
- awkward postures.

These activities may be performed during work, daily life (housework) or be related to recreational activities such as sports. Exposing the entire body repeatedly to vibration and jolting, usually through vibration from machines and vehicles, transmitted through the seat or floor, can also result in lower back pain.

Less commonly, the pain may be caused by infection, tumors or spinal nerve damage.
### Types of back pain

<table>
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<th>TYPE OF PAIN</th>
<th>POSSIBLE CAUSE</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck pain</td>
<td>Poor posture — after sleeping in an awkward position, or prolonged computer use.</td>
<td>Treat with simple analgesics such as paracetamol or ibuprofen, hot compress and gentle neck exercises.</td>
</tr>
<tr>
<td></td>
<td>Whip lash — common after sudden jerks, as in road traffic accidents.</td>
<td>Should resolve in a few days or weeks but see a doctor if the pain persists or if you are concerned.</td>
</tr>
<tr>
<td>Lower back pain</td>
<td>Can be the result of heavy lifting or twisting awkwardly, or you may simply wake up with it one morning.</td>
<td>Lying flat usually eases the pain. Keep active — restricting your movement can make it worse.</td>
</tr>
<tr>
<td></td>
<td>Often associated with ergonomic stressors at work in professions that operate heavy equipment or do lifting.</td>
<td>In most cases the pain will disappear in 7 to 10 days. If not, see a doctor.</td>
</tr>
<tr>
<td></td>
<td>Lower back pain can spread to one or both buttocks and thighs, and worsen with coughing, sneezing or movement.</td>
<td></td>
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</table>

### Diagnosis and treatment

A thorough physical examination will help exclude any serious medical condition. Depending on the situation, imaging of the structures (X-ray, CT scan, MRI or bone scan) might be recommended to determine whether there is anything unusual relating to the bone, discs or nerves.

Recovery from acute back pain is usually faster if normal activities are continued. If bed rest is required, it generally shouldn’t last beyond two days.

Other treatments, such as manual manipulation, acupuncture, transcutaneous nerve stimulation (TENS), physical therapy or strength training may help some people. Occasionally surgery is recommended for certain conditions such as disc bulging causing nerve compression.

### Preventing back pain

Looking at the spine with X-rays or other imaging techniques before a problem occurs does not help predict who will get low back pain and generally isn’t recommended.

Most causes of low back pain are mechanical and are self-limiting. Simple precautions in the workplace and at home can help limit the risk of developing low back pain. Some serious conditions can cause back pain so in some circumstances urgent medical attention should be sought.

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If there has been significant trauma (such as a fall from a height), or there are symptoms such as fever, muscle weakness, numbness, pins and needles or loss of bladder or bowel control, an urgent medical assessment is required.
Are you getting
ENOUGH SLEEP?

Written by: Dr Claudia Berty, Chief Medical Officer, Myanmar Clinic

Until the 1950s, sleep was considered to be a passive activity of daily life. Now we know that once we switch off the lights and become immersed in sleep, our brains get into a complex and active set of neurological stages that affect our mental and physical health. Hence, it is only now that we’re beginning to understand why we sleep and how we can revolutionise the way we do it.

Studies show that sleep-deprived people have greater difficulty focusing, make poorer decisions, learn more slowly, have more memory lapses and experience higher levels of anxiety and aggression than their well-rested peers.

Lack of sleep can also have a negative impact on the immune system, cause weight gain and hamper physical performance. In babies, children and teens, it can inhibit growth and development.

Key facts about sleep

- You spend about 33% of your life asleep — equivalent to 26 years for an average human
- Growth hormone is released during sleep
- Lack of sleep can cause insulin resistance
- Strengthens neuronal connections — sleep solidifies our daily learning

What happens when you don’t get enough sleep?

- Increased risk of diabetes, heart disease, and high blood pressure
- Mood swings, with more frequent ‘bad moods’
- Daydreaming; difficulty focusing and learning
- Judgment and reaction time become impaired
- Lack of concentration while you are driving

The 5 stages of sleep

Sleep happens in a cycle, which lasts around 90 minutes

- It repeats 4 to 6 times per night
- Most of your sleep time is spent in stages 1 to 4
- With each cycle, the amount of REM time increases
- You get most of your REM sleep at the end of the night (hours 5 to 8)

Sleep cycles go through five stages. The first four are ‘non-REM’ sleep.
STAGE | WHAT YOUR BODY DOES | BRAIN ACTIVITY
--- | --- | ---
1 | Falling asleep — drifting “in and out” between awake and asleep | • Thoughts wander, and awareness of the ‘waking world’ lowers • You can be woken easily, and may not know you had been sleeping
2 | Heart rate slows | • Brain waves become slower with occasional bursts of rapid waves called sleep spindles • You can be easily woken by almost any noise, change in light, etc.
3 & 4 | Body temperature and blood pressure drop | • Very slow (delta) brain waves appear, mixed in with smaller and faster waves • Then brain waves are almost exclusively delta variety • Harder to wake up, even when someone calls your name or a baby cries • If woken up, you may feel confused and ‘half awake’
5 REM | Body temperature and blood pressure drop | • 200% increase in blood flow to the brain • Your most memorable dreams occur • May be when memories consolidate

Enhance your rest experience

Your routine — performing routines each night helps your body and mind shift into sleep mode more easily.

- Create a pre-sleep ritual. It signals your body and mind to get sleepy
- Warm water, like a bath or shower, can help
- Calm down with music or a book
- Go to bed and get up the same time each day — weekends included!
- Finish meals a few hours before bedtime
- Avoid caffeine in the evenings
- Avoid exercise too close to bedtime

Maybe it’s a matter of insomnia

Do you identify with the following symptoms?

- Have trouble falling asleep
- Wake up during the night, unable to go back to sleep
- Wake up hours too early, unable to go back to sleep

If your answer to the symptoms above is “yes” then you might be one of the estimated 150 million of people affected by insomnia worldwide.

Treating and avoiding insomnia

These tips are valuable for all sleepers, not just insomniacs.

- Hide the alarm clock (and anything else that worries you at night)
- Create routines: eat, exercise, do chores at the same time each day
- Try not to nap after about 3.00pm
- Morning light: let in the sun or use bright lights in the morning
- Evening light: avoid bright lights (including TV and computer screens) near bedtime
- Only go to bed when tired. Do not stay in bed if you are still wide awake 20 minutes after lying down. Do something enjoyable until you feel sleepy
- Avoid exercise too close to bedtime
- Manage pain and chronic conditions: ensure symptoms don’t wake you up

The hormones released in stages 3 and 4 help the body to:

- Repair tissues
- Build bone and muscle
- Strengthen the immune system to fight illness

Certain stages of sleep are needed in order to feel well-rested and energetic the next day. Other stages help us learn or make memories. People whose sleep is interrupted a lot, or is cut short, might not get enough of these important stages of sleep.

References:
https://www.sleepassociation.org/patients-general-public/what-is-sleep

Image Description:
A man is lying in bed, reading a book. The scene suggests a calm and peaceful environment, possibly aiding in the process of falling asleep.
What is stress?
Stress is simply your mental and physical reaction to a changing environment and the constant demands of life. Everyone experiences stress. It’s neither good nor bad, on its own. Some stress is necessary to stay productive and engaged in life. Moderate stress can increase performance. Happy events are stressful too (getting married, job promotion), but what matters is how you manage that stress.

Stress prepares your body to protect itself from a threat, such as the physical danger of predator attacks. This reaction is often called “fight or flight” mode. In modern times, it helps people win races or finish projects.

Acute stress
Acute stress is short-term, usually related to an event that just occurred or will happen soon. Acute stress can be triggered by an approaching deadline, a job interview, challenging sporting event or game, a fight, fall or other dangerous event.

Chronic stress
Chronic stress comes from ongoing situations, rather than a single event. Chronic stress can be caused by things such as ongoing job difficulties, financial or relationship problems or illness.

Effects of chronic stress
Your body’s stress response is not intended to work all day, every day. When the stress response is engaged constantly, it can negatively affect your health and well-being and put a strain on relationships.

Physical:
- Your immune system can become unbalanced, making it easier to get sick.
- If you are already ill, stress can make the illness worse.

Emotional:
- Getting angry more easily
- Feeling overwhelmed
- Mood swings
- Insecurity

Relationships:
- Decreased contact with friends and family
- Decreased sex drive
- Becoming bossy or controlling of others
- More critical of people

Unhealthy coping mechanisms
Stress can also make us unwell if we use unhealthy ways to cope.

To save time or energy, people under stress sometimes skip exercise sessions, eat less healthy meals, skip meals, overeat, use cigarettes, alcohol or other drugs to feel better. All of these take a physical toll on your body and may leave you even more stressed and tired.

Start healthy, stay healthy
Bodies that are well-cared for are better equipped to handle “fight or flight” surges brought on by stress.

Tips to reduce stress:
- Exercise regularly
- Eat a balanced diet
- Limit caffeine
- Get enough rest

Get professional help if you...
- Feel trapped, like there’s nowhere to turn
- Worry excessively
- Find stress interferes with your work or relationships
- Feel hopeless or “blue” for more than two consecutive weeks
- Are overwhelmed
- Have suicidal or self-harming thoughts
- Become compulsive about food or sex
- Feel isolated

These symptoms may be a sign of mental illness, or very severe chronic stress. Speak to a counsellor or physician.
Stress is not a disease but a person's reaction to excessive demands and pressure. Many managers may see stress as a sign of weakness and ignore symptoms which damage their health in the long term. The greatest cause of stress reported these days is from work-related issues.

Stress for a manager can come from many areas —

» Trying to balance obligations at home and work
» Increasingly complex work environments with constant change
» Trying to achieve more with fewer resources
» Email and mobile phones making managers live and work 24 hours a day

The symptoms of stress can be both physical and psychological. Physical symptoms include headaches, backaches, bowel disturbance, high blood pressure, and poor sleep quality. Psychological symptoms include being short-tempered, agitated, easily irritated by small problems, decreased work productivity and poor concentration.

Simple solutions to stress include, considering better time management techniques, accepting what cannot be changed, being realistic in what is achievable, delegating responsibilities, taking time out to relax and finding interests away from work, exercising regularly and avoiding alcohol, coffee or cigarettes as a solution.

Preventative health check-ups become increasingly important as you get older and many people working in management will avoid these if they have no symptoms. The purpose of health checks is to identify health problems before they cause permanent problems. This is no different to having a car and getting it serviced regularly. During these regular check-ups vaccinations can be reviewed and updated.

Many managers attend frequent business lunches and dinners. Others will say they are too busy to have regular meals. Both of these lifestyle habits mean that the diet may be poor, either lacking in nutrition or too high in saturated fats and sugars. Frequent business dinners can also result in drinking more alcohol than is healthy.

Lack of time due to work demands is also major excuse given for not taking regular physical exercise. Regular exercise not only maintains heart and lung health, bone and muscle strength, it is also a valuable method of weight control and stress reduction. It helps reduce high blood pressure and cholesterol and reduces the risk of certain cancers and diabetes.

Finally, managers who travel frequently for business should be aware of the health effects of jetlag. This occurs with long distance travel across more than 3 — 4 time zones. Physically the body “clock” is not synchronised to the new location and is not ready for the new challenges.

Symptoms of jetlag include difficulty sleeping and daytime fatigue, poor appetite or bowel disturbance, poor decision making and an increased risk of errors or accidents. It is strongly advised that no major meetings be scheduled immediately after arrival. It is possible to minimise the effects of jetlag by getting as much rest as possible on long flights, avoiding alcohol but taking in additional fluids. Upon arrival going outside daily in sunlight to stimulate the hormones which regulate the body clock also help. It may be necessary to take prescribed sedatives to aid sleep and this should be discussed with your healthcare professional prior to departure.
Burn wounds are common and very painful injuries. Most are minor requiring only common sense first aid, however the occasional serious burn incident demands professional medical care. Severe burns may have dire and debilitating long-term consequences. It is vital that we know the difference and are aware of all the myths surrounding burn treatment — immediate care may well improve outcomes and lead to earlier recovery.

Burns are caused by dry or wet heat (e.g. flame, steam, hot water/oil, stove), chemicals, electricity, and radiation (e.g. sunburn).
Stop the burning process

If clothes catch fire, do not run — immediately stop, drop, cover and roll on the ground, or smother the flames with a fire blanket or similar. Covering the face will help protect the airway.

Clothing that retains heat, either soaked in hot liquids or scorching charred clothing, should be removed at once since this acts as a heat reservoir. Leave clothing which is adherent to underlying skin and irrigate with water.

Cool the burn

When someone suffers a burn, immediate cooling with cold running tap water is an easy and effective first aid treatment. This reduces the severity and extent of tissue damage and relieves pain. The burning process will continue deep down unless reversed by cooling.

Immerse the burnt area in water or use wet towels if there is no access to running water. Do not use ice. Similarly, do not use butter, ointments, oil, salves or creams as they may retain heat and worsen injury. There are many such antiquated traditional remedies applied to burns — do not use these! Simply cool the burn until the pain is relived.

Cool the burn... warm the patient

The burn victim should be kept warm during and after cooling the wound. Cooling the burn can lead to hypothermia (decreased body temperature) which can be dangerous. There is a greater risk of hypothermia with larger burns and in the elderly or young patients.

Cover the burn

Once the pain subsides after cooling, where the surface is blistered or raw, the wound should be protected and covered with a clean, loose, non-stick dressing and bandage. For large burn areas, a sheet or other material that won’t leave lint in wound, could be used. Be sure to separate burnt toes and fingers with dry, clean dressings.

Plastic film wrap or clean cloth might be useful to keep the burn wound clean prior to transfer to a medical facility. Avoid wrapping the affected area circumferentially with plastic film wrap as this may cause a tourniquet effect and worsen swelling.

Superficial burns

Only top layers of skin are burnt. Skin is red and dry, no blisters, very painful, e.g. severe sun burn. Medical treatment is usually not needed.

When are burns serious and severe? You should seek medical attention for the following burns:

- Any full thickness burn (Burn appears pearly white, charred, leathery, dry, parchment-like, and there is little to no pain.
- Partial thickness burns (top and lower level of the skin is damaged, resulting in red, blistered, moist skin, and is extremely painful) which are > 1% of body surface area (i.e. more than the size of patient’s hand — palm and fingers).
- Circumferential burns (i.e. a burn extending right around a limb, finger, etc).
- Burns in a young or elderly patient.
- Electrical and chemical burns.
- Burns on face, hands, feet, major joints or genitalia.
- Any patient with burns and trauma / injury.
- Suspected inhalation burns (high-pitched breathing noises, coughing, hoarseness, black sputum or respiratory distress, singed nasal hairs or facial swelling, any burn on head, neck and chest).
- Signs of infection are noticed — increased and continued pain, redness, swelling, fever, or oozing.
Complications

The larger the surface area that is burnt, the more severe the injury. Burns result in fluid loss, and increase the risk of infection.

Special considerations

**Electrical burns** — safety first! Once the victim has been separated from the electrical source, check for breathing. If not awake and not breathing call emergency services and start cardiopulmonary resuscitation (CPR).

**Chemical burns** — safety first! Ensure you do not touch any hazardous chemicals with your bare hands. Wash away the chemicals with running water as soon as possible. Chemicals continue to destroy tissue while they remain in contact with the skin. Avoid washing chemical over unaffected skin. Burns caused by both electricity and chemicals are serious and may cause extensive internal injury — these victims must be taken to hospital.

Conclusion

Burns are painful and can have critical devastating consequences. The most minor burns are easily treated by immediate cooling with running water. Severe burns must be recognised early and those victims should be transferred rapidly to medical care. By avoiding myths and applying common sense, it is possible to care for these common injuries effectively.

References:

https://resus.org.au
http://www.mayoclinic.org
http://www.vicburns.org.au
International SOS First Aid Manual
http://www.webmd.com

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**First aid for any burn**

- Prevent getting burnt yourself — **SAFETY first always!**
- Check that the person is awake and breathing — if neither, begin CPR.
- **STOP** the BURNING. Remove the source of burning.
- Immediately **COOL** the burnt area with cool water (running water if possible).
- **Hydrogel** products may be used if cool water is not available.
- Cool for as long as required to relieve the pain.
- Wash off any chemicals or remove anything that is burning or smouldering.
- Remove clothing only if loose and non-adherent.
- Expose the burn wound.
- Remove constrictive jewellery early if possible — burns can swell fast.
- Cover with a clean, loose, non-adherent dressing, and elevate the affected limb if possible.
- Get the burnt victim to medical care if severe.
- Someone with severe burns is also a trauma victim and may have multiple injuries.

**DO NOT...**

- Break blisters
- Remove any skin
- Apply any lotions or potions, fats, grease, etc.
- Attempt to clean the burn wound
- Treat severe burn injuries yourself — seek medical care, early!
- Avoid burn treatment myths such as applying butter.

By avoiding myths and applying common sense, these common injuries may be effectively cared for.
What is yellow fever?

- Yellow fever is a potentially fatal viral disease.
- It is spread via mosquito bites.
- It is prevented through vaccination.
- The virus is present in jungles and infects monkeys.
- When a person gets infected, they can bring the virus into urban environments. This can cause large human outbreaks (via mosquito bites) if vaccination coverage is low.
- A number of countries in South America and Africa are “endemic” for yellow fever.

Yellow fever disease

Most people have no symptoms. If symptoms occur, they appear about three to six days after the infected mosquito bite.

Symptoms are similar to many other illnesses, and include:

- fever
- muscle pain
- back pain
- headache
- nausea and vomiting

85% of people recover in about four days, although it may take weeks for tiredness and weakness to improve. However within 24-hours of seeming recovery, about 15% of people progress to a serious toxic illness with high fever, abdominal pain, jaundice (hence the name “yellow fever”), bleeding and organ failure.

Vaccination for travel

Vaccination is important and should be discussed with your medical advisor.

Vaccination may be:

- Recommended to protect you from the disease, and/or
- Required (by the authorities) to enter certain countries. This may be for all travellers or it may be only for those who have recently visited, or even briefly transited, a country with yellow fever.

ALWAYS check the requirements of ALL countries on your itinerary, INCLUDING that of your home country.

How does yellow fever spread?

- Yellow fever is a “flavivirus”, similar to Dengue.
- It is transmitted to humans through the bite of an infected mosquito.
- In the jungles — the virus circulates between infected monkeys and mosquitoes. People who visit or work in the jungles, if they are not vaccinated, can be infected.
- In urban environments — when an infected person returns to villages and cities, they can infect local mosquitoes, which go on to infect other people. Large outbreaks occur if people aren’t vaccinated.

Treatment

- No specific treatment is available.
- Treatment is mainly supportive and includes rest and plenty of water.
- If using medicine to relieve fever and pain, avoid aspirin/non-steroidal anti-inflammatories (such as ibuprofen) as these medicines can make bleeding worse.
It is estimated that we need an average of **7 — 9 hours sleep** per day, but normal variations are seen depending on factors such as age.

Those who sleep for fewer than five hours a day are more likely to have heart attacks, strokes or angina attacks and the risk also increased in those who clock up nine hours or more.

**Normal blood pressure** is generally considered to fall within a **range below (120/80)**.

This is the guideline for adults and it is age-related. High blood pressure is anything above 120/80 and puts you at a greater risk of developing heart disease.

Several guidelines suggest a healthy person requires, on average, **30 min exercise per day**.

Moderately intense aerobic exercise is recommended, but this and the duration will be dependent on general health and fitness levels.

Doctors recommend a minimum of 30 minutes exercise per day, four days per week. Your healthcare professional can recommend exercise appropriate for you.

Many medical centres advise that you need on average **20 — 35 gram** of **fibre** per day (20 — 25gm), depending on gender and age.

The nutrition label on packaged food can show you how much fiber you are getting in each serving.

It is generally considered advisable to **maintain a body mass index (BMI)** of an estimated **18.5 — 24.9**.

BMI measures your weight in relation to your height. The healthy range for body mass index, or BMI, is considered to fall in the range 18.5 — 24.9, and is related to your age, gender and body type. If your BMI is above 25 you could be overweight. If your BMI is 30 or greater, you may be considered obese and being obese increases the risk of developing various health problems.

It is generally considered that your maximum total **cholesterol level** should be less than **200mg per decilitre**.

Cholesterol is a fatty substance found in your blood. Your total cholesterol score is calculated in the following manner: LDL + HDL + 20 % of your triglyceride level. The total cholesterol levels should ideally be below 200mg per decilitre. If your cholesterol is elevated, there is a higher probability of that your risk of cardiovascular diseases is increased.
A normal heart rate for most individuals is generally in a range of 60 — 100 beats per minute depending on age, gender, health and fitness levels.

High resting pulse rate can indicate heart disease, poor cardiovascular fitness and/or be part of the body’s response to diseased state such as infection or blood loss in a trauma patient. A heart rate that is below 60 could indicate normal variant, electrical conduction anomalies within the heart, but has also been observed in very fit athletes.

Blood sugar levels for healthy individuals, without diabetes, are expected to fall in a range 70 — 99 mg/dl (3.9–5.5 mmol/L) in the fasting state.

Glucose is the body’s main source of energy. The average blood sugar range is between 80 and 120 mg/dl. If blood sugar is too high or too low, it may be a sign of diabetes. Left untreated, diabetes can lead to heart disease, kidney disease, and other complications.

A random blood sugar level of 200 milligrams per decilitre (mg/dL) — 11.1 millimoles per litre (mmol/L) — or higher is suggestive of diabetes. A fasting blood sugar level less than 100 mg/dL (5.6 mmol/L) is usually considered normal.

There are multiple guidelines on the quantity of fruit and vegetable servings that should be consumed daily. Many guidelines recommend eating 4-5 servings of fruit and veggies per day (2 — 3 cups per day) depending on individual’s health status.

One’s diet is an important health aspect. Eating 4 — 5 portions of fruit per day can contribute to a healthy diet and lifestyle.

Over the years there have been multiple estimates on the amount of water/fluid a person should consume daily. The problem with these estimates is that it the amount of fluid required daily will vary significantly depending on how much water loss an individual experiences and this is dependent on factors such ambient temperature, exercise and health status. E.g. someone living in the hot tropics and performing manual labour outdoors will lose far more fluid and will therefore need to replace more fluid. An individual working at a desk in a cool air conditioned office in London will require less fluid.

There are many different opinions on how much water we should be drinking every day. Two glasses of non-caffeinated liquids is recommended and if you are in an environment where you are losing more fluid, drink more fluids.
Medicine has changed dramatically over the past 50 years. From my grandfather’s generation when the pharmacology textbook was a tiny 40-page book that taught one how to make one’s own tablets and emulsions to the hi-tech medications and massive databases we have now. Our current pharmacology textbook is hundreds of pages thick and in small print — that’s a lot of information that needs to be understood and applied appropriately on a daily basis. Clinical governance is supposed to be the tool that assists healthcare providers (HCP) to do this.

Clinical governance is a broad concept that has had many different meanings for different individuals working in different contexts globally — depending on their level of training and their position within an organisation and the regions within which they work.

The definition of clinical governance, as quoted in the Clinical Governance Guide for Remote and Isolated Health Services in Australia — September 2013 is clear and concise: “The essence of clinical governance is to ensure that more right things happen to patients by making it easy to do the right thing, and less wrong things happen to patients less often by making it difficult to do the wrong thing” — Australian Institute of Company Directors. (2011). The Board’s role in clinical governance (p.1). Sydney: Author.

Another definition of clinical governance that I like, describes it as:

“The system by which the governing body, managers, clinicians and staff share responsibility and accountability for the quality of care, continuously improving, minimising risks, and fostering an environment of excellence in care for consumers and safeguarding high standards of care. This is achieved by creating an environment in which there is transparent responsibility and accountability for maintaining standards and by allowing excellence in clinical care to flourish.” — Australian Commission on Safety and Quality in Health Care. (May 2013). NSQHS Standards guide for small hospitals.

These are good definitions, but how do you practically achieve this considering our global context and the complexity of medicine? The exponential explosion of information and rapidly advancing digital age has brought with it a tsunami of information, too much information some might argue.

The good news is that as computing technology advances, so too has our ability to use digital tools to assist medical practice and support our HCPs on a daily basis.

By leveraging advances in electronic medical records, automation and access to medical databases we have been able to perform large scale peer review, and provide rapid feedback and support to HCPs in remote and inaccessible areas. The results have been very positive.

All our HCPs have access to a digital database called ClinicalKey — “ClinicalKey is a clinical search engine that helps doctors, nurses and other health professionals make better decisions anywhere, anytime, in any patient scenario”.

This database is also available on smart phones via the ClinicalKey app. This means that our HCPs can access current, evidence-based, peer-reviewed data quickly and easily and accumulate Continued Medical Education (CME) points while doing so. HCPs can also access useful and relevant Patient Education Brochures for all medical conditions within seconds. These patient education brochures can be printed and handed to the patient during a consultation or emailed to the patient, empowering patients to better understand their medical condition and access quality information.

International SOS has developed a comprehensive clinical governance system that incorporates innovative utilisation of eHealth tools including Telemedicine and mHealth tools. Clinical governance has gone digital!

I think the future looks very bright indeed.
“There is an axiom that the purpose of data is action”
Mohammed, Cheng, Rouse, & Marshall, 2001

The key elements of continuous quality improvement include:

- Accountability
- Achieving improvement through incremental steps
- A commitment to team work
- Linking evaluation to planning
- Being driven by input from all levels of staff, management, and other stakeholders
- Continuous review of progress

Clinical governance: A system through which organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care. This is achieved by creating an environment in which there is transparent responsibility and accountability for maintaining standards, and by allowing excellence in clinical care to flourish. Clinical indicators are a measurable component of the standard, with explicit criteria for inclusion, exclusion, timeframe, and setting.

A Clinical Governance Guide for Remote and Isolated Health Services in Australia, 2013
What is arthritis?

Arthritis is a very common disease that can affect anyone of any age. Arthritis means the inflammation of one or more joints of the body. It can affect just one joint, or many joints at the same time. Arthritis can affect any of the important structures inside a joint and there are many causes of arthritis.
What is a joint?
A joint is the area where two bones meet. Joints allow the easy movement between two bones and are responsible for the flexibility of the body. It is made up of different structures and tissues and any of these structures can become inflamed. The different structures are:
- Cartilage, which covers the end of the bones;
- Synovial fluid, which is a thick fluid that lubricates the joint;
- Synovium, which is the lining of the joint; and
- The important muscles and ligaments that give support and stability to the joint.

What are the causes of arthritis?
There are many causes of arthritis of which the most common are listed below:
- **Osteoarthritis** — due to general wear and tear on the joints. Causes pain and stiffness.
- **Rheumatoid arthritis** — an autoimmune condition that causes inflammation, pain and swelling of the joints. Can affect any age group.
- **Gout** — excessive uric acid in the blood causes attacks of pain and swelling in one or more joints. Maintaining a healthy lifestyle and diet can reduce risk.
- **Septic arthritis** — caused by an infection in a joint. Symptoms include pain, swelling and inability to move a joint, feeling generally unwell and possibly fever. This condition is serious and needs urgent medical attention.

What are the symptoms of arthritis?
Arthritis causes symptoms in the affected joints but importantly some types of arthritis can also cause general symptoms in the rest of the body such as tiredness, loss of weight, fever, swollen lymph nodes, and rashes.

The most common symptoms of arthritis are joint pain and stiffness. Other symptoms include difficulty in moving the affected joint, swelling and skin changes around the joint such as warmth and redness.

How is arthritis diagnosed?
There are several steps in the diagnosis of arthritis and the cause. Your doctor asking you about the history of your symptoms and doing a full physical examination provides the most useful information.

Blood tests and x-rays are sometimes needed to determine the cause of arthritis and your doctor will decide when this is necessary.

Occasionally it is necessary to test the fluid inside an affected joint. Withdrawing some of the fluid from the joint with a needle and syringe does this. It is also referred to as a "joint aspiration" or a "joint tap".

How is arthritis treated?
The treatment of arthritis usually depends on the specific cause of the type of arthritis and what is the safest for each individual patient.

Some treatments are however common to most type of arthritis and includes simple pain killers (such as paracetamol), stronger pain killers (such as opioid medication) and anti-inflammatories (such as ibuprofen). Certain types of arthritis also benefit from physical therapy and rehabilitation.

When to seek help?
Certain types of arthritis require urgent medical care. If you have one or more swollen, painful joints and any of the following, you should see your healthcare professional as soon as possible:
- Fever
- Inability to move the affected joint due to severe pain
- Unintentional loss of body weight
- Feeling generally unwell and ill
- Sudden muscle weakness

Can arthritis be prevented?
Currently there is no sure way to prevent the onset of most types of arthritis, but by maintaining a healthy lifestyle and treating symptoms early, the risk of complications can be reduced and in certain cases the potential onset of arthritis be delayed.

Certain types of arthritis have associated risk factors that can be modified. Those include:
- **Osteoarthritis** — maintaining a health body weight.
- **Gout** — maintaining a healthy diet, low in sugars, alcohol and purines.
- **Rheumatoid arthritis** — avoid smoking.

Where can I get more information?
The best source of information for any medical concerns or questions about your health is your healthcare provider.
Traveller’s diarrhoea and other intestinal infections can affect any traveller. However, they do occur more commonly in travellers who visit developing countries. Faecal contamination of food and water with the bacterium E. coli causes most cases of traveller’s diarrhoea.

Select safe food

These guidelines are particularly relevant when traveling in developing countries:

- Always wash your hands with soap before eating, or use a hand sanitising gel/lotion.
- Ask locally which restaurants and hotels serve safe food.
- Select food that is thoroughly cooked while fresh and served very hot, since heat usually kills bacteria.
- Avoid undercooked or raw meat, fish or shellfish, even if they are the local delicacy. These are potentially a major source of infection.
- Remember that certain types of fish, such as pufferfish, can be toxic to humans. If you choose to eat fish, make sure you know what type it is.
- Avoid food sold by street vendors or other potentially unhygienic establishments.
- Only eat raw fruit you have peeled yourself. (oranges, bananas, mangos, avocados, etc.)
- Avoid salad and raw vegetables in restaurants. Only eat raw vegetables if they were washed well with clean water and soaked in water containing chlorine-based sterilising tablets or household bleach (four drops per litre).
- Avoid food that has been left unrefrigerated for more than two to four hours, especially if it was kept warm. Food that has been prepared hours (or days!) ago is more likely to be contaminated than freshly cooked food.
- Only drink pasteurised cow’s, sheep’s or goat’s milk. If in doubt, you can pasteurise it yourself by heating almost to a boil and then cooling. Avoid dairy products (such as ice cream, butter and cheese) if you do not know if they have been made from pasteurised milk.
- Use a fly net to protect food that will be left for any period of time.

Avoid contaminated water

Water is a frequent source of intestinal infection, since supplies are often contaminated by human and/or animal faeces. Most cities and large towns have large piped water systems, but the water is only safe to drink if it has been fully treated and chlorinated. Ask locally if water is safe to drink. Where there is a risk that the tap water may be contaminated, use the following guidelines:

- Bottled water and drinks are normally safe, especially carbonated drinks.
- The outside of cans or bottles may be contaminated, especially if they were stored in ice. Clean and dry bottles and cans before drinking from them or pouring the liquid into a glass.
- Remember that ice may have been made from contaminated water and therefore may not be safe.
- Use safe water for brushing teeth and for washing raw vegetables and salad.
- Don’t drink the water from open wells or rivers unless using an iodine resin water purifier.

If bottled water is not available, the following alternative means of sterilisation can be used:

- Boiling water is by far the most reliable method for making it safe to drink. Bring water to a full boil for one minute and allow it to cool to room temperature. Prolonged boiling is unnecessary.
- Disinfectants
  1. Iodine is very effective: Four drops of two percent tincture of iodine should be added to each litre of water and left for 15 minutes. Avoid using iodine for prolonged periods (longer than six weeks).
  2. Sterotabs and Puritabs: These are chlorine-based and are less effective against some infectious agents, including amoebic cysts.
  3. In an emergency, use household bleach: use two to four drops per litre of clear water and leave for 15 minutes. This is safe and effective but will leave water tasting of chlorine. (Disinfecting can be ineffective if the water is visibly cloudy.
- Portable water filters: There are several types of water filters. Each provides various degrees of protection against microbes.

Since filters collect organisms from water, people with immunodeficiency (HIV-positive people, chemotherapy patients) should not maintain water filters. Anyone changing cartridges should wear gloves and wash their hands afterwards with soap.
Water-related diseases include:

- Diseases caused by bacteria in drinking-water, like cholera and typhoid.
- Diseases caused when viruses, such as hepatitis A and polio, contaminate drinking-water.
- Other common diarrheal diseases, such as amoebic dysentery, are caused by amoebae in drinking-water.
- Chemical pollutants can enter the water supply and make people sick.
- Schistosomiasis is a parasitic infection you can get by swimming or bathing in fresh water contaminated with parasites.
- Malaria, dengue and other diseases are spread by mosquitoes that breed in water.
- Diseases such as legionella, where bacteria are spread by fine airborne water droplets (mist).

Making water safe to drink

The following methods can be used to kill or remove microorganisms:

- Boiling
- Chemicals like chlorine
- Filtration
- UV (ultraviolet) treatment

Water storage

- Safe water can become unsafe if it is transported and/or stored incorrectly. Care should be taken to:
  - Store water in clean disinfected containers
  - Practise hand hygiene while handling water
  - Avoid storing water for long periods of time
  - Avoid containers that allow contamination of water such as those with wide openings that need dippers, etc.
- Narrow neck containers, or sealed containers with spouts or taps, are safer container choices.

Water for hygiene

- Water also contributes to health through hygiene practices. It is vital to use safe water, and soap, to keep your hands and body clean.
- Always use safe water to wash your hands, brush your teeth and to clean any surfaces or equipment that comes into contact with food.

Some 842,000 people are estimated to die each year from diarrhoea as a result of unsafe drinking-water, sanitation and hand hygiene.

World Health Organization, 2015
Learning however, is not all play and we should all learn to be quiet, to concentrate, to communicate with good manners and to pay attention. Some of us learn more easily, but human behaviour is not all instinct and children actually start with a clear pad on which life’s learning curve is written. Society as a whole has an input into this learning process, but the influence of parents, siblings, friends, peers, nannies and teachers have a far more permanent effect.

Talk to your very young baby, telling it about daily life. In the classical extended family circle the family would take turns to take the baby, rock it to sleep, comfort and talk to him. In the modern family the young parents seldom have that support and need to talk to the baby more often. The baby is comforted by your presence and your voice and the brain thrives on the stimulation.

Talk about stories. Read to your toddlers and young children daily, teach them poems and songs. Teach them music and make music together. Even playing on pots and pans while cooking counts as musical experiences. Early music education and experiences are all proven positive influences on young children. The Japanese successfully teach three year olds to play violin. Many music teachers are now following the Japanese example and often offer music to groups of young kids.

Try to teach your young child more than one language through contact with others. The complexity of language is a human-only capacity and our brain thrives on this stimulation. His mother’s language will stimulate the verbal and emotional intellect, laying the foundation for easier learning in future. Children can learn many languages. They can easily cope at school, even with second or third languages in the school context, as long as they learn to verbalise themselves in their mother tongue.

Exercise and stimulation as

BRAIN FOOD FOR YOUNG CHILDREN

Growing children need physical activity, structured and unstructured. They need to play for many hours, more than what most modern educational systems are allowing. Children’s playful learning during the first seven years is of prime importance in developing creative minds. Playing, happy learning experiences and security, set the environment for optimal brain development.

It is not harmful to a young baby to have parents from different cultures and parents can both talk to the child their own first language. The child will listen and understand. This child often starts talking, lagging with a few months behind his single language peer, but once they start they will use the correct language when speaking to each parent and their language development will shoot past their peers.

Older primary school children still need lots of exercise and unless they excel at sport, might not get enough attention or opportunities at school sport. After a long day at school, being forced to sit and concentrate for hours, children need lots of exercise. Informal play for young children with peers is often enough, but older children need some more. Some children enjoy team sports at school. Others hate it. Find your child’s niche. All children have something that they can do. Channels their energy into sport if you think they have too much energy. Find a sport or physical activity which they like, even if you cannot understand their interest in it.

There are now many gyms that also cater for youngsters. Swimming is an excellent sport for those suffering from asthma as it develops lung function and swimming training is always started with a long, slow warm-up swim, suitable for the exercise induced asthmatic. Teens lazy to do sport might enjoy cycling or dancing. Smartphone and computer games might keep kids busy and out of your way and might develop some fine hand movements and co-ordination, but children do need playful communication and interaction and to stretch their muscles and bodies to remain healthy and to develop emotionally and intellectually.
Care for the future of your child starts before conception with the lifestyle of the prospective parents. Parents should scrutinise their own lifestyle and health and if uncertain, visit their doctor for discussion. Children need not only good food, but also a calm balanced security at home for optimal development.

We are learning from psychiatrists that ambient trauma, which springs from chaotic circumstances at home, have a huge influence on the outcome of the cognitive, physical and emotional development of our children. It then becomes easy to see how our hectic modern life can damage our children. Previous generations were perhaps more protected by the connective interaction from the extended family but globalisation comes with a penalty of young families often being removed from their extended families. They then lose the support and wisdom these connections would otherwise offer.

Healthy start — conception to six months

Healthy lifestyle
The development of a child’s brain begins just after conception. We are human beings capable of enormous intellectual ability due to our magnificent brain. Compared to body weight, the human brain is bigger than that of any other mammal. A large brain needs a large head. The developing infant grows rapidly from conception to birth with the head always bigger than the body and thus human babies are born far more immature than most other mammals. An antelope baby can run hours after birth, keeping up with its mum and recognising her. A human baby is helpless and reliant on all help and feeding.

Before conception and during pregnancy the mother should exercise, eat a healthy balanced diet and take supplements (vitamin D, calcium, folic acid) as advised by the country health authorities where she lives. All these help to keep her in good health, while the infant is growing.

Her state of health influences her baby’s health in many ways and the baby’s growth and development should be assessed by regular visit to a healthcare professional. Expecting mothers should not consume alcohol, should not smoke or take drugs as these are all associated with severe damage to the infant’s brain development.

Breastfeeding
The WHO endorses exclusive breastfeeding up to the age of six months, because there is overwhelming evidence about the advantages breastfeeding holds for the baby. This pertains to growth and brain development, as well as to resistance against disease. Modern baby-friendly maternity hospitals have support programs for nursing mothers. Visit your healthcare professional and enquire about the maternity hospital and support that you will get. Anxiety causes mothers to struggle with breastfeeding. Most women can breastfeed if given enough support. “Not having thick enough milk” is an ancient myth.

Second best to breastfeeding is the correct type of infant formula and again this should be discussed with your treating healthcare professional. If you choose infant formula, make sure you spend lots of time holding and interacting with the baby while feeding. Do not just prop up the baby with a bottle and run off to do other tasks. The interaction with the mother during feeds is part of the baby’s security and some of the most important initial emotional brain pathways are laid down during this stage of life.

Young babies should attend “well-baby follow up check-ups” with healthcare advisors for regular weighing and assessment of good development throughout the first year. Support here can be of prime importance to the mother and she should feel free to voice concerns during appointments.

Mothers of newborn babies that struggle alone can easily get “baby blues.” If you feel depressed, or down or unengaged, discuss this with your doctor as you are entitled to all support medical science and your society has on offer. There is much evidence that the mother’s emotional state affects the baby’s brain and emotional development and there is no reason why she should not be supported optimally for her own as well as her baby’s wellbeing.
MAKE EXERCISE FUN

Play with your friends
VISIT YOUR DENTIST

4 rules for a happy smile:
1. Eat healthy food
2. Brush your teeth twice a day
3. End your meal with cleansing food
4. Visit your dentist regularly
STOP WAIT GO!
ALWAYS BE RESPONSIBLE
ON THE ROAD
ROAD SAFETY FOR KIDS

Find the hidden words in the table below.
Words run from left to right, top to bottom and diagonally.


Hidden words:
- Car
- Driver
- Stop
- Passenger
- Sign
- Accident
- Traffic Light
- Road
- Seatbelt
- Transport
- Break
- Turn

Colour the ‘STOP’ sign
EVERYONE IS DIFFERENT, BE KIND TO ONE ANOTHER

How many paw prints can you find?
As more people travel and work internationally, widespread medical and security support is needed. International SOS mitigates risk, contains costs, drives quality and provides 24-hour travel and medical advice and assistance globally.

Based on 30 years of practical experience and extensive research into Duty of Care, International SOS has developed a systematic approach to assisting organisations in the design and implementation of integrated risk mitigation solutions. We work with our clients to demonstrate a return on investment in prevention, preparation and proactive intervention to actively decrease the cost of medical and security interventions.